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# Notified Bodies Rail CCS presentation

ERTMS Conference 22-04-2026



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# Changes?

- Participation NB Rail CCS & ERA CCS meetings
- Alignment ERA & NB Rail about testing

## Improvements

- Language of reports
- Assessment national implementation

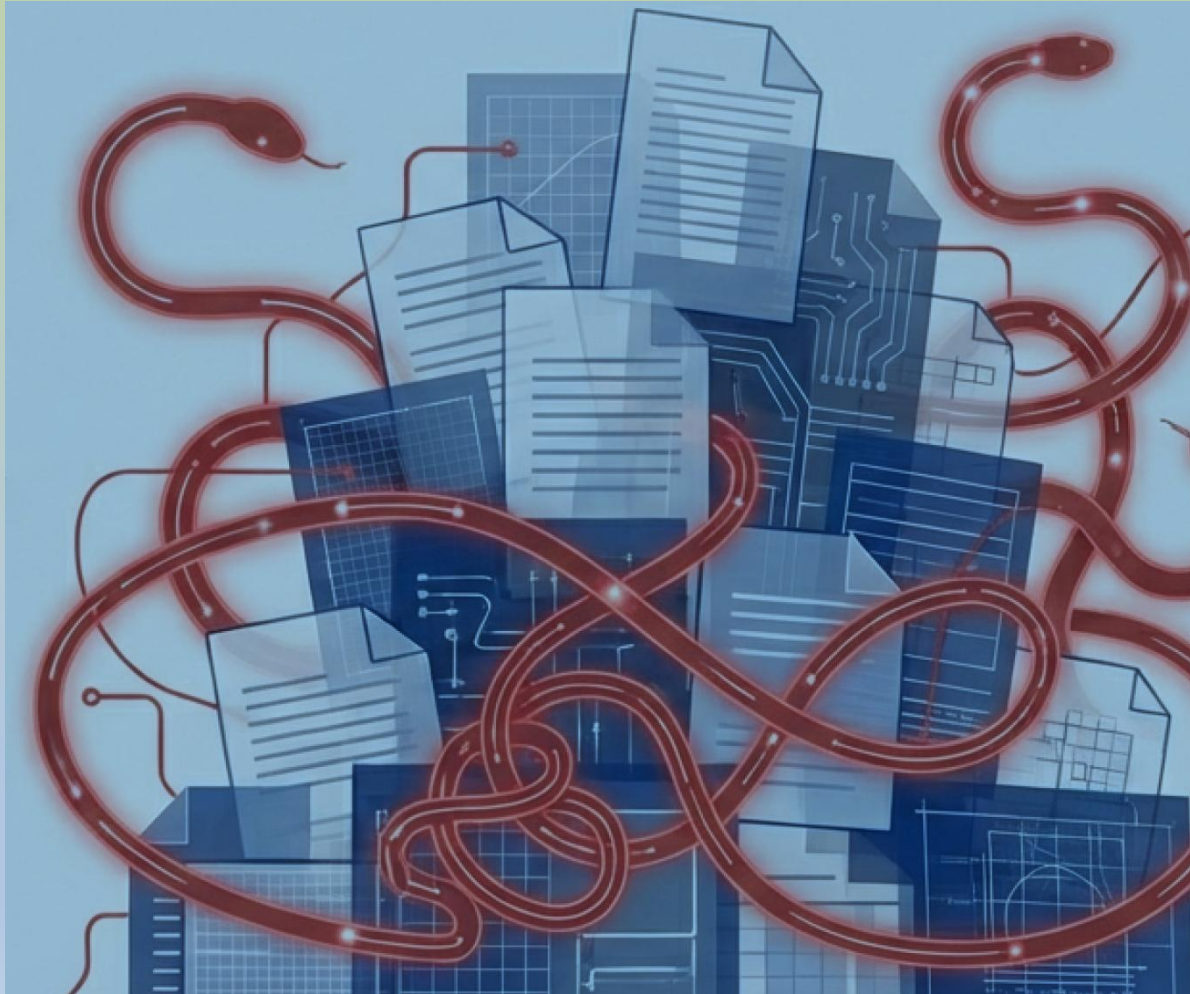
# IMPROVEMENT OF ASSESSMENT OF NATIONAL ERTMS IMPLEMENTATION



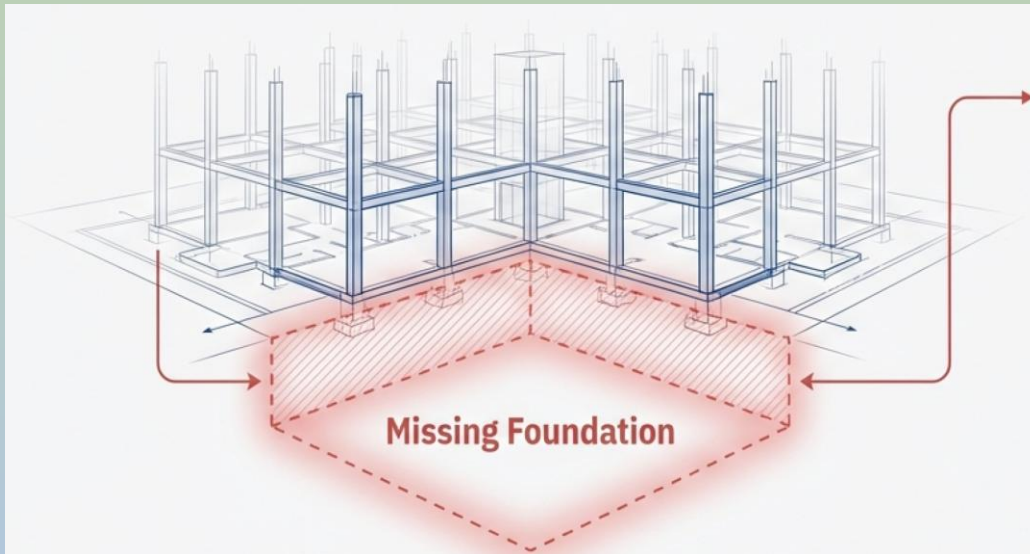
# Why do national ERTMS specifications exist?



# Current status



# The diagnosis

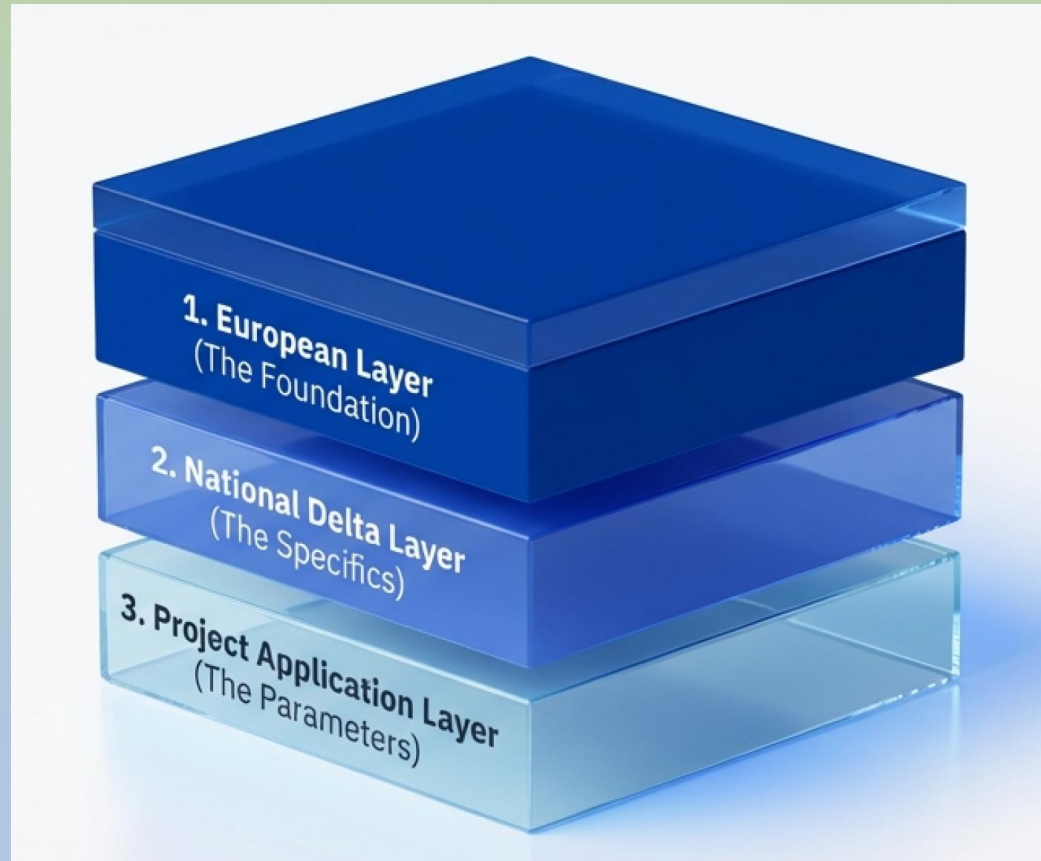


No clear hierarchy of rules  
(European vs National vs project)

No modular “package” for  
national rules that can be reused

No foundation for machine-  
readable consistency checks

# The solution



# Layer 1 - European layer

## The foundation

TSI CCS Control-Command and Signalling  
Subsets

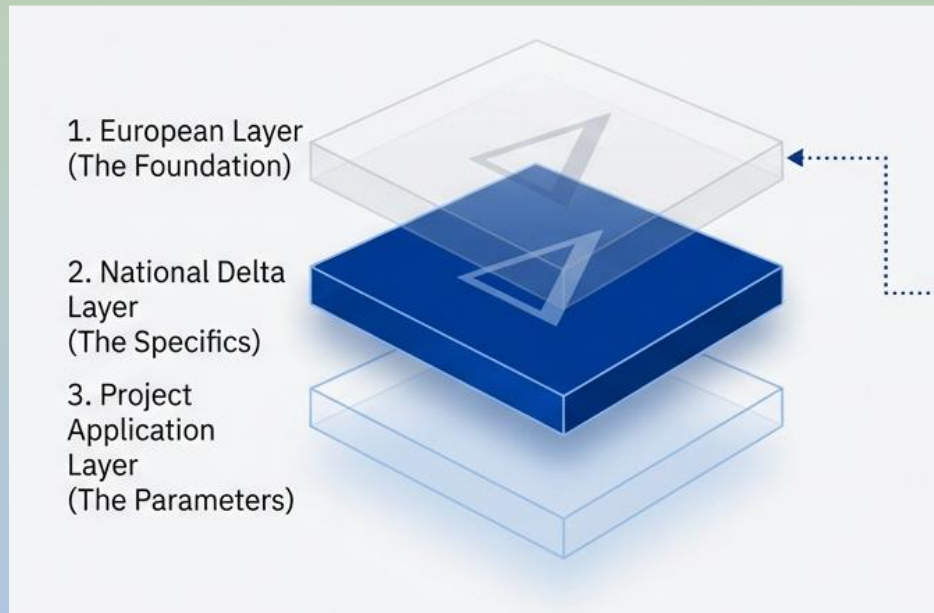
Critical principle:

This layer is referenced, not rewritten.



# Layer 2 – The national “Delta” layer

## The Specifics



Only deviations

Explicit reference

No redundancy



# Case from Serbia

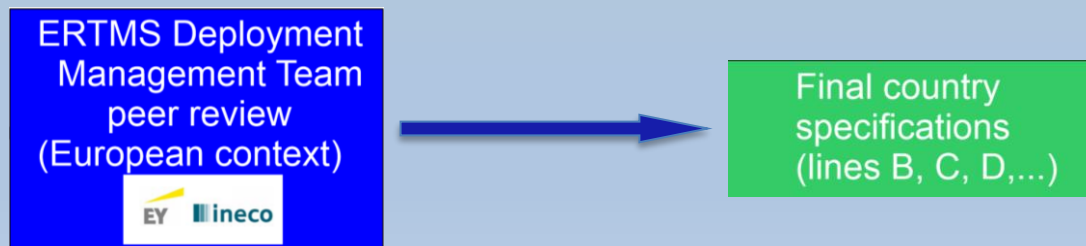


**High Dependence on Supplier Documentation**

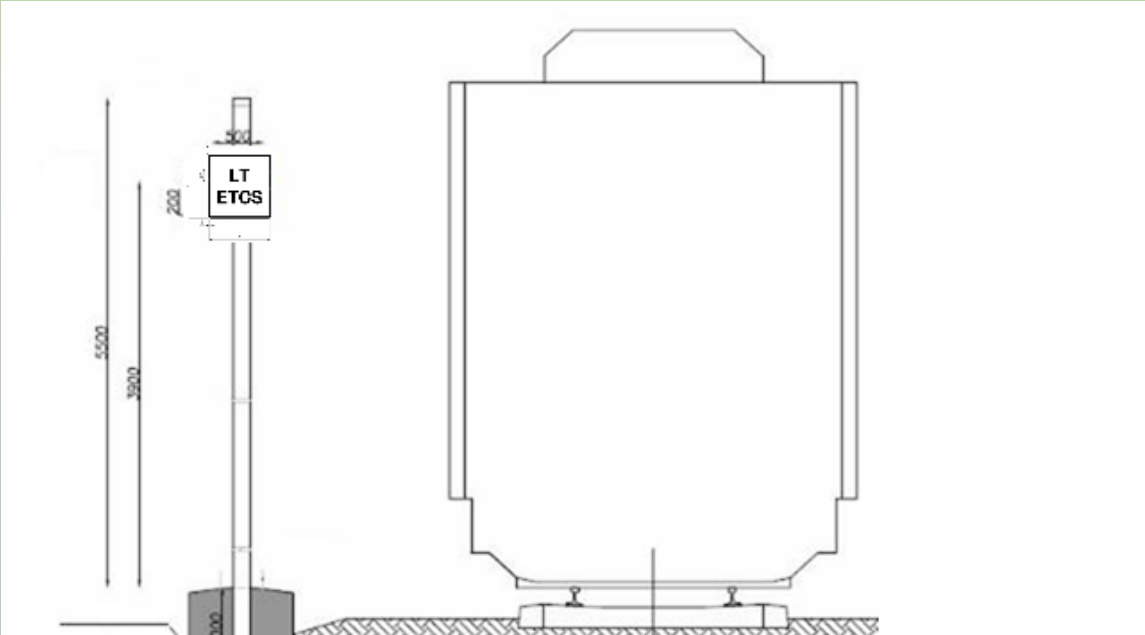
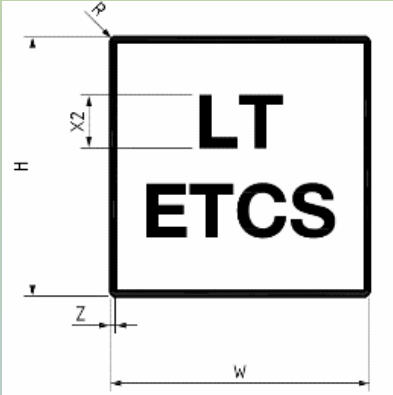
**National Rules Embedded Directly**



**SRS with very low reusability across different railway lines or projects**



# Case from Croatia

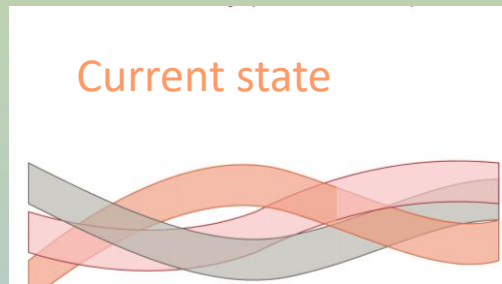


# Use case from Croatia

Possible solutions on the EU level:

- Standardise **the structure**, not the values
- Freedom only in **numerical parameters** where infrastructure differs
- Agree on **common acceptance evidence**

# A fundamental shift from ambiguity to clarity



Ambiguous mix of mandatory/informative rules

Duplication of TSI requirements

Supplier dependent and project specific

High risk of misinterpretation

Difficult to audit and assess

## The Layered Model (Future State)



Clear separation of responsibilities

TSI is master, no duplication

Supplier neutral and national reusable

Reduced ambiguity, clear traceability

Simplified assessment and design review

# A practical roadmap for implementation



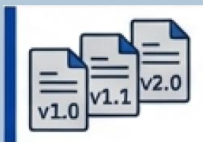
1. Define a National ERTMS Rule Catalogue



2. Map each Rule to a TSI/ERA Reference



3. Adopt controlled Terminology and Identifiers



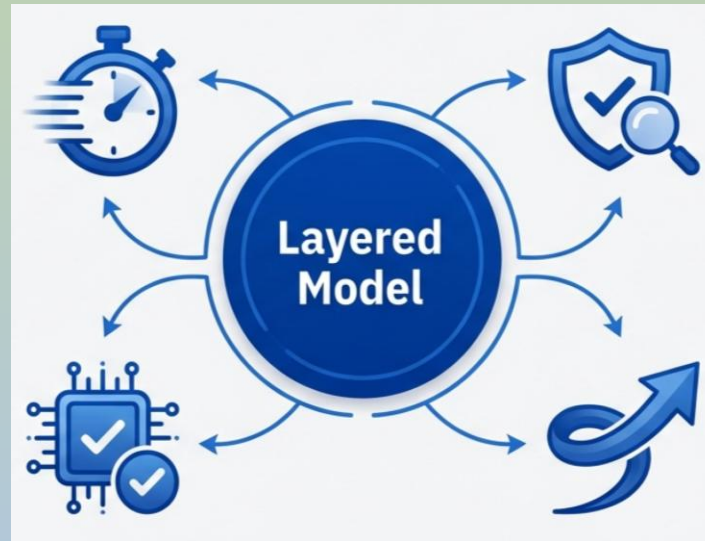
4. Maintain Versioned National Delta Documents



5. Prohibit Project Specific Rule Creation

# Conclusion

**Accelerates  
Design & Review**



**Simplifies  
Independent Safety  
Assessment**

**Enables Semi-  
Automated  
Verification**

**Future- Proof &  
Scalable**

**The paramount goal of ERTMS:  
A single and competitive European railway network.**

**THANK YOU FOR YOUR ATTENTION!**